

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PALMER W. AGNEW,  
DOUGLAS K. FERGUSON,  
ANNE S. KELLERMAN and  
THOMAS B. KELLERMAN

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Appeal No. 96-3092  
Application 08/307,498<sup>1</sup>

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ON BRIEF

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Before THOMAS, JERRY SMITH and HECKER, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134

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<sup>1</sup> Application for patent filed September 14, 1994. According to appellants this application is a continuation of Application 08/135,373, filed October 12, 1993; which is a continuation of Application 07/712,757, filed June 10, 1991.

from the examiner's rejection of claims 14-30, which constitute all the claims remaining in the application.

The disclosed invention pertains to an assembly for operatively coupling a computer to peripheral equipment using optical fibers. Specifically, optical fiber is wound on a rotatable spool within a computer and connects the I/O means of the computer with peripheral equipment. One end of the optical fiber becomes aligned with an associated optoelectronic structure of the I/O means when the rotatable spool is rotated to a predetermined position. The other end of the optical fiber is connectable to the peripheral equipment.

Representative claim 14 is reproduced as follows:

14. A computer comprising microprocessor means, memory means and I/O means operatively coupled together, said I/O means including associated optoelectronic structure including a substrate and an optical subassembly including at least one plastic optical fiber, said I/O means further including a retractable optical fiber connector assembly having a rotatable spool rotatably positioned on said substrate of said I/O means, at least one plastic optical fiber adapted for being wound about said spool and including a terminal end, said plastic optical fiber wound about said spool adapted for optically coupling said computer to a peripheral component, said rotatable spool including means for retaining said terminal end of said plastic optical fiber wound about said

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spool such that said terminal end is optically aligned with said plastic optical fiber of said optical subassembly of said associated optoelectronic structure of said I/O means of said computer in an end-to-end, facing relationship when said spool is rotated to a predetermined position on said substrate of said I/O means.

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The examiner relies on the following references:

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|--------------------------|-----------|---------------|
| D'Auria et al. (D'Auria) | 4,668,044 | May 26, 1987  |
| Cannon                   | 4,786,136 | Nov. 22, 1988 |
| Koht et al. (Koht)       | 5,090,792 | Feb. 25, 1992 |

(filed May 11,  
1990)

The following rejections have been made by the  
examiner:

1. Claims 14-30 stand rejected under 35 U.S.C. § 101  
because the invention as disclosed is asserted to be  
inoperative and, therefore, lacking in utility.

2. Claims 14-30 stand rejected under 35 U.S.C. § 112,  
first paragraph, as being based on a disclosure which is not  
enabling to make and use the invention and which does not  
provide an adequate written description of the invention.

3. Claims 14-30 stand rejected under 35 U.S.C. § 103  
as being unpatentable over the teachings of Koht in view of  
D'Auria.

4. Claims 14-30 stand rejected under 35 U.S.C. § 103  
as being unpatentable over the teachings of Koht in view of  
Cannon.

Rather than repeat the arguments of appellants or the  
examiner, we make reference to the briefs and the answers for

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the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the prior art rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answers.

It is our view, after consideration of the record before us, that the claimed invention is operative and has utility within the meaning of 35 U.S.C. § 101. We are also of the view that the specification describes the claimed invention in a manner which complies with the first paragraph of 35 U.S.C. § 112. Finally, we are of the view that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 14-30. Accordingly, we reverse.

Appellants have indicated that for purposes of this

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appeal the claims will all stand or fall together as a single group [brief, page 5]. Consistent with this indication appellants have made no separate arguments with respect to any of the claims on appeal. Accordingly, all the claims before us will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). Therefore, we will consider the rejection against independent claim 14 as representative of all the claims on appeal.

We consider first the rejection of claims 14-30 under 35 U.S.C. § 101 based upon the examiner's position that the invention as disclosed is inoperative and therefore lacks utility. It is the examiner's position that the mechanical spooling device which has a torsion bar and clutch is incapable of satisfying the delicate three-dimensional alignment of the fiber terminal end to the optoelectronic structure of the I/O means to properly couple the light energy. The examiner contends that without additional alignment structure which has not been disclosed, the claimed invention would not operate and thus lacks utility [answer, pages 3-4].

Appellants argue that the alignment required for the invention to operate does not rise to the level of criticality deemed necessary by the examiner for low end plastic optical fibers as claimed [brief, pages 6-7]. In support of this position, appellants have filed declarations under 37 CFR § 1.132 by Thomas B. Kellerman, Brian D. Alden and Ronald C. Lasky. Each of these declarations states that the alignment of plastic

optical fibers for an operative device can be achieved by the disclosed invention without any additional structure.

The examiner responds that the specification notes that "additional structure may be utilized to more effectively accomplish such alignment" [page 14, lines 28-29]. The examiner contends that such additional structure is necessary rather than optional to accomplish the necessary alignment. The examiner also questioned the objectivity of the declarants. With respect to the low grade plastic fibers referred to in the three declarations noted above, the examiner noted that the claims were not limited to such low grade optical fibers [supplemental answer].

The Federal Circuit has stated that "[a]n invention need not be the best or the only way to accomplish a certain result, and it need only be useful to some extent and in certain applications: '[T]he fact that an invention has only limited utility and is only operable in certain applications is not grounds for finding lack of utility.' Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 762, 221 USPQ 473, 480 (Fed. Cir. 1984)". Stiftung v. Renishaw PLC, 945 F.2d 1173, 1180, 20 USPQ2d 1094, 1100 (Fed. Cir. 1991). When all the facts on this record are considered, it appears that no undisclosed structure is required to implement the invention for low grade optical fibers such as plastic optical fibers. The specification states that additional structure may be utilized for higher grade fibers. The three declarations all support the appellants' position that the disclosed device at least works for plastic fibers without additional structure. The examiner does not seem to challenge the position that the disclosed device works for lower grade fibers, and if the examiner does challenge this position, he offers no evidence in support of it.

Since utility under 35 U.S.C. § 101 is a question of



fact, and since the evidence of record in this case overwhelmingly supports the position of appellants that the disclosed device is operative for low grade optical fibers without additional structure, we do not sustain the examiner's rejection of the claims based on lack of utility.

We now consider the rejection of claims 14-30 under 35 U.S.C. § 112 based upon the examiner's position that the disclosure does not contain an adequate written description of the invention and does not enable a person skilled in the art to make and use the claimed invention. This rejection is similar to the rejection on lack of utility because it is premised on the position that there is no disclosure of alignment structure which will permit the invention to operate as intended. Appellants and the examiner have essentially made the same arguments with respect to this rejection as they made with respect to the rejection under 35 U.S.C. § 101.

Although the question of whether the disclosed invention is enabling for optical fibers around 200-250 microns has not been resolved, the evidence of record, as noted above, supports the finding that the invention as

disclosed is sufficient to permit the claimed device to work when using lower grade optical fibers such as plastic fibers. Thus, we find that at least one working embodiment of the invention has been properly disclosed. That is, the invention as claimed reads on at least one embodiment of the invention which is adequately disclosed. Such a disclosure is generally all that is required to meet the requirements of 35 U.S.C. § 112.

If the examiner's concern is that the claimed invention is broader than the disclosed operative embodiments, it should be noted that this happens all the time. A single working embodiment is generally sufficient in the electronic arts to support broad generic claims. The general rule is that an adequately disclosed invention may be claimed as broadly as the prior art allows. In other words, an applicant is not required to limit the claims to the disclosed embodiments except to the extent necessary to overcome the applied prior art. On the record before us, appellants are not required to narrow the claims in order to achieve compliance with the first paragraph of 35 U.S.C. § 112. Therefore, we do not

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sustain the rejection of the claims under 35 U.S.C. § 112.

We now consider the rejection of claims 14-30 under 35 U.S.C. § 103 as being unpatentable over the teachings of Koht in view of D'Auria or Cannon. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S.

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1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The examiner basically cites Koht as teaching a device in which optical fiber 46 is "wound" on a rotatable spool 202 and the optical fiber is coupled to a coupler or tap 34 by rotation of the spool. The examiner recognizes that Koht does not achieve end to end coupling of optical fibers as recited in the claims. Both D'Auria and Cannon are cited as teaching devices for achieving end to end coupling of optical fibers. The examiner observed that it would have been obvious to modify the Koht device to couple optical fibers in an end to end relationship because that would provide for better coupling [answer, pages 8-10].

Appellants assert that Koht describes only the side engagement of optical fibers known as taps and teaches away from end to end alignment. Although D'Auria and Cannon teach

that it was known to align two optical fibers in an end to end alignment, appellants argue that neither of these references teaches aligning fibers on a rotatable spool [brief, pages 10-13]. Appellants also argue that there is no suggestion within the applied prior art that the teachings should be combined in the manner proposed by the examiner.

A careful consideration of the teachings of Koht reveals that Koht is only interested in coupling optical fibers at bends of the fibers. Although D'Auria and Cannon reveal that end to end coupling of fibers was known in the art, we can find no basis for modifying Koht to achieve end to end coupling. The examiner simply asserts that end to end coupling would provide better coupling. Although the "advantages" of end to end coupling of optical fibers was known in the art, Koht neither desires such coupling nor suggests any way in which a retractable connector having a rotatable spool can be rotated to achieve such end to end coupling. The only basis we can find for combining the teachings of Koht with either D'Auria or Cannon is to attempt to reconstruct in hindsight the invention claimed by appellants. Such hindsight reconstruction of the prior art

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based on appellants' own disclosure is improper. Therefore,  
we do not

sustain the examiner's rejections of claims 14-30 based on the  
applied prior art.

In summary, we have not sustained any of the  
examiner's rejections of the claims under 35 U.S.C. §§ 101,  
112 or 103. Accordingly, the decision of the examiner  
rejecting claims 14-30 is reversed.

REVERSED

JAMES D. THOMAS )  
Administrative Patent Judge )  
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|--------|-----------------------------|-----------------|
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|        | STUART N. HECKER            | )               |
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